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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/593,009	11/14/2008	Philip Owen	SP62H02/P-WO/US (589-16)	6487
38790	7590	12/24/2009	EXAMINER	
THE SMALL PATENT LAW GROUP LLP 225 S. MERAMEC, STE. 725T ST. LOUIS, MO 63105			POLITO, NICHOLAS F	
			ART UNIT	PAPER NUMBER
			3673	
			NOTIFICATION DATE	DELIVERY MODE
			12/24/2009	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

Docket@splglaw.com

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/593,009	OWEN, PHILIP	
	<b>Examiner</b>	<b>Art Unit</b>	
	Nicholas Polito	3673	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 17 September 2009.

2a) This action is **FINAL**.                  2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 1-16 and 18-21 is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5) Claim(s) \_\_\_\_\_ is/are allowed.

6) Claim(s) 1-16 and 18-21 is/are rejected.

7) Claim(s) \_\_\_\_\_ is/are objected to.

8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All    b) Some \* c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____ .
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)	5) <input type="checkbox"/> Notice of Informal Patent Application
Paper No(s)/Mail Date _____ .	6) <input type="checkbox"/> Other: _____ .

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-4, 13, 15, 16, 19 and 20 are rejected under 35 U.S.C. 102(e) as being anticipated by O'Reagan (US Patent No. 7,100,229).

3. Regarding claim 1, O'Reagan teaches in Figures 1 and 4 a mattress (20), comprising: a resilient body having at least one upper surface portion (30) for supporting a person; and a plurality of shallow surface channels (55, 60) disposed in the at least one upper surface portion and extending parallel thereto; wherein said at least one upper surface portion is upwardly inclined, and wherein along at least a part of the length of said surface channels in the inclined upper surface portion, a direction of elongation of said surface channels is inclined relative to the horizontal.

4. Regarding claim 2, O'Reagan teaches in Figure 4 the mattress of claim 1, wherein the body has an axis of elongation corresponding to the head-to-toe direction of the person lying, in use, on the mattress, and at least one upper surface portion is inclined relative to the axis of elongation.

5. Regarding claim 3, O'Reagan teaches in Figure 1 the mattress of claim 2, wherein at least some of the surface channels (55) have a component of direction,

Art Unit: 3673

along at least a portion thereof, parallel to the direction of rising incline of the respective surface portion.

6. Regarding claim 4, O'Reagan teaches in Figure 1 the mattress of claim 2, wherein at least some of the surface channels (55) have a component of direction, along at least a portion thereof, parallel to the axis of elongation.

7. Regarding claim 13, O'Reagan teaches in Figure 1 the mattress of claim 1, wherein said at least one upper surface portion includes a body surface portion for supporting, in use, the body of a person, a head surface portion for supporting, in use, the head of a person, and/or a top surface portion.

8. Regarding claim 15, O'Reagan teaches in Figure 1 the mattress of claim 1, wherein, for one or more of the surface portions, said surface channels are provided over substantially the entire surface area thereof.

9. Regarding claim 16, O'Reagan teaches in Figure 1 the mattress of claim 1, wherein said surface channels are distributed over substantially the entire surface area of said surface portions.

10. Regarding claim 19, O'Reagan teaches in Figure 1 the mattress of claim 1, further comprising a support supporting the mattress, the support including a substantially flat base surface and said body having an upward incline along a centerline from a foot portion to a head portion.

11. Regarding claim 20, O'Reagan teaches in Figure 3 the mattress of claim 1, wherein said at least one upper surface portion for supporting a person is configured in the form of a seat.

***Claim Rejections - 35 USC § 103***

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. Claims 5 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over O'Reagan in view of Kienlein (US Patent No. 6,704,961).

14. Regarding claim 5, O'Reagan teaches the mattress of claim 1. O'Reagan does not teach wherein at least some of the surface channels extend substantially diagonally so as to make an angle of less than 90° with the axis of elongation. Kienlein teaches in Figure 10 wherein at least some of the surface channels (19) extend substantially diagonally so as to make an angle of less than 90° with the axis of elongation. In view of Kienlein, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to combine the diagonal channels of Kienlein with the mattress of O'Reagan to improve tensile relief (Kienlein; col. 2, lines 15-27).

15. Regarding claim 21, O'Reagan teaches in Figures 1 and 4 the mattress of claim 1, wherein said at least one upper surface portion comprises a plurality of sections. O'Reagan does not teach at least two of the sections having different patterns of the surface channels. Kienlein teaches in Figure 10 a mattress (1) wherein at least one upper surface portion comprises a plurality of sections (5, 6) having different patterns of the surface channels (19). In view of Kienlein, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to combine the

differing channel patterns of Kienlein with the mattress of O'Reagan to effectively support different sections of the human anatomy.

16. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over O'Reagan in view of Agulnick (US Patent No. 4,267,611).

17. Regarding claim 6, O'Reagan teaches the mattress of claim 1. O'Reagan does not teach wherein at least some of the surface channels have a non-linear path, when viewed from above. Agulnick teaches in Figure 1 wherein at least some of the surface channels (18) have a non-linear path when view from above. In view of Agulnick, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to combine the non-linear channels of Agulnick with the mattress of O'Reagan to improve blood circulation (col. 1, lines 57-61).

18. Claim 7-9 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over O'Reagan in view of Weston (US Patent No. 6,256,822).

19. Regarding claim 7, O'Reagan teaches the mattress of claim 1. O'Reagan does not teach wherein the body comprises sidewalls adjacent said at least one surface portion, the mattress further including at least one connecting channel, the at least one connecting channel being in communication with a plurality of said surface channels and with at least one sidewall. Weston teaches in Figure 1A wherein a mattress body (10) comprises sidewalls (12) adjacent at least one surface portion (26), the mattress further including at least one connecting channel (39), the at least one connecting channel being in communication with a plurality of surface channels (30) and with at least one sidewall. In view of Weston, it would have been obvious to a person having

ordinary skill in the art at the time the invention was made to combine the sidewalls of Weston with the mattress of O'Reagan to aid in retention and control of an occupant while resting on the surface (Weston; col. 1, lines 63-67).

20. Regarding claim 8, O'Reagan in view of Weston teaches the mattress of claim 7, wherein the at least one connecting channel (O'Reagan; Figure 8, 55 and Weston; Figure 1B, 39) is disposed in the at least one upper surface portion.

21. Regarding claim 9, O'Reagan in view of Weston teaches the mattress of claim 7, wherein the at least one connecting channel (O'Reagan; Figure 8, 55 and Weston; Figure 1B, 39) includes a connecting channel extending centrally parallel to said axis of elongation, and/or includes a connecting channel extending substantially transverse to said axis of elongation.

22. Regarding claim 14, O'Reagan in view of Weston teaches the mattress of claim 7, wherein the connecting channel (O'Reagan; Figure 8, 60 and Weston; Figure 1B, 30) extending substantially transverse to said axis of elongation extends along the lowermost region of said head surface portion.

23. Claims 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over O'Reagan in view of Neal (US Patent No. 4,967,433).

24. Regarding claims 10 and 11, O'Reagan teaches the mattress of claim 1. O'Reagan does not teach wherein said surface channels have a transverse dimension at the surface of about 4 to 15 mm and said surface channels are spaced apart at the surface by about 5 to 20 mm. Neal teaches in column 3, line 54 to column 4, line 34 wherein surface channels have a transverse dimension at the surface of about .75" to

1.5" and said surface channels are spaced apart at the surface by about 1.5" to 2.5". Furthermore, Neal teaches providing a peak height to peak-to-peak spacing ratio of between 1.5 to 1.8 to provide mutual support between adjacent ridges against collapse. Neal teaches varying the channel dimensions and spacing, suggesting to one of ordinary skill in the art that a wide range of values are possible and that optimization is necessary based on the specific conditions under which the product is used. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide surface channels with a transverse dimension at the surface of about 4 to 15 mm and spaced them apart at the surface by about 5 to 20 mm, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

25. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over O'Reagan in view of Emery (US Patent No. 3,235,892).

26. Regarding claim 12, O'Reagan teaches the mattress of claim 1. O'Reagan does not teach wherein said surface channels have a transverse cross-sectional area that varies along the length of the channel. Emery teaches in Figure 1 a cushion wherein surface channels (17, 18, 22) have a transverse cross-sectional area that varies along the length of the channel. In view of Emery, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the mattress of O'Reagan with the varying cross-sectional area channels of Emery to provide bulbous portions which provide support for a user (Emery; col. 3, lines 17-26).

27. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over O'Reagan in view of Weston and Emery.

28. Regarding claim 18, O'Reagan teaches the mattress of claim 1. O'Reagan does not teach wherein the resilient body comprises sidewalls and said surface channels have a transverse cross-sectional area that increases in size with proximity to the sidewalls.

Weston teaches in Figure 1A wherein a mattress body (10) comprises sidewalls (12). In view of Weston, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to combine the sidewalls of Weston with the mattress of O'Reagan to aid in retention and control of an occupant while resting on the surface (Weston; col. 1, lines 63-67).

O'Reagan in view of Weston does not teach surface channels having a transverse cross-sectional area that increases in size with proximity to the sidewalls. Emery teaches in Figure 1 surface channels (17, 18, 22) having a transverse cross-sectional area that increases in size with proximity to the sidewalls. In view of Emery, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the mattress of O'Reagan with the varying cross-sectional area channels of Emery to provide bulbous portions which provide support for a user (Emery; col. 3, lines 17-26).

### ***Response to Arguments***

29. Applicant's arguments with respect to claims 10 and 11 have been considered but are moot in view of the new ground(s) of rejection.

30. Applicant's arguments filed 9/17/2009 have been fully considered but they are not persuasive.

31. In response to applicant's argument that the ridges (30) and cuts (39) in the topper of Weston are not channels, a channel is defined as a groove. Therefore the ridges and cuts of Weston are channels.

32. In response to applicant's arguments that the ridges (30) and cuts (39) in the topper of Weston are not connecting channels, the ridges and cuts form a grid, which interconnect at multiple locations in the topper. Therefore, a particular ridge or cut of Weston can act as a connecting channel.

#### ***Conclusion***

33. Applicant's amendment of claim 1 "wherein along at least a part of the length of said surface channels in the inclined upper surface portion, a direction of elongation of said surface channels is inclined relative to the horizontal" necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nicholas Polito whose telephone number is (571) 270-5923. The examiner can normally be reached on Monday-Friday 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Pete Cuomo can be reached on (571) 272-6856. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Nicholas Polito/  
Examiner, Art Unit 3673

/Peter M. Cuomo/  
Supervisory Patent Examiner, Art  
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12/14/2009